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10/690,319	10/20/2003	Jeffery N. Gleason	2269-5157.1US (01-1004.01)	1135
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EXAMINER TRINH, HOA B				
ART UNIT 2814		PAPER NUMBER		
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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/690,319  
Filing Date: October 20, 2003  
Appellant(s): GLEASON, JEFFERY N.

\_\_\_\_\_  
Mr. Brick G. Power  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 01/15/2008 appealing from the Office action mailed August 16, 2007.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

3,699,395	Boleký	10-1972
6,008,124	Sekiguichi et al.	12-1999

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

**Claim Rejections - 35 USC § 102**

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 3-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Boleky (3,699,395). Boleky discloses, as to claim 1, an intermediate structure of a semiconductor device comprising at least one open fuse structure 42 (fig. 1) on the intermediate structure; and a metal feature 50 (col. 3, lines 15-26 and fig. 1) on an exposed metal structure 18, 18' (fig. 1) of the intermediate structure, wherein a metal of the metal feature 50 is present on the exposed metal structure 18, 18' (fig. 1) and is not present on the at least one exposed open fuse 42 (fig. 1).

As to claim 3, the metal feature 50 (fig. 1) is a metal layer, an interconnect cap, or a redistribution layer (col. 3, lines 15-26).

As to claim 4, the metal feature 50 is the metal layer (col. 3, lines 15-26).

As to claims 5-6, the metal feature 50 comprises nickel (col. 3, lines 15-26).

As to claim 7, the exposed metal structure 18, 18' is a bond pad (fig. 1).

As to claim 8, the intermediate structure is an intermediate structure of an SRAM or FLASH memory chip (col. 2, lines 5-10).

**Claim Rejections - 35 USC § 103**

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1,148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art. 2. Ascertaining the differences between the prior art and the claims at issue. 3. Resolving the level of ordinary skill in the pertinent art. 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103 (a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Initially, and with respect to Claim 2, note that a "product by process" claim is directed to the product per se, no matter how actually made. See *In re Thorpe et al.*, 227 USPQ 964 (CAFC, 1985) and the related case law cited therein which make it clear that it is the final product per se which must be determined in a "product by process" claim, and not the patentability of the process, and that, as here, an old or obvious product produced by a new method is not patentable as a product, whether claimed in "product by process" claims or not. As stated in Thorpe, even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. *In re Brown*, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972); *In re Pilkington*, 411 F.2d 1345, 1348 162 USPQ 145, 147 (CCPA 1969); *Buono v. Yankee Maid Dress Corp.*, 77 F.2d 274, 279, 26 USPQ 57, 61 (2d. Cir. 1935). Note that Applicant has burden of proof in such cases as the above case law makes clear.

2. Claim 2 is rejected under 35 U.S.C. § 102(b) as being anticipated by, or in the alternative, under 35 U.S.C. § 103(a) as obvious over Boleky.

Boleky discloses the invention substantially as claimed in claim 1.

As to the grounds of rejection under section 103(a), how the metal feature is made by an electrolessly plated or other process step, pertains to an intermediate process step which does not affect the final device structure. See MPEP § 2113 which discusses the handling of "product by process" claims and recommends the alternative (§ 102 / § 103) grounds of rejection.

#### **(10) Response to Argument**

In the remarks, appellants allege, in particular, that Boleky teaches layer 18 as a silicon layer, not a metal layer, as recited in claim 1. However, the examiner disagrees with appellants' allegation. Boleky teaches that exposed layer 18 is a metal (col. 5, lines 45-46) strip. Thus,

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Boleký's layer 18 meets the limitation of a "metal exposed structure", as claimed in the present invention.

The examiner notes that appellants consistently make a one-sided argument that Boleký teaches layer 18 being made of silicon material which appellants allege that silicon is a non-metal. Although the examiner acknowledges that Boleký also teaches that layer 18 is made of silicon, it is not to be taken as a whole. As stated in the above, Boleký teaches that layer 18 is made of a metal as well as being made of silicon. Even for *arguendo* that Boleký's layer 18 is made of silicon, appellants fail to recite any specific metal material for the "metal" exposed structure. Thus, the term "metal" is interpreted as a conductor. In the art, "silicon" material is well known as a semiconductor. Its chemical property is similar to metal and that it is more electropositive than lead. Thus, Boleký meets the claim's limitation.

#### **(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

(Vikki) Hoa B. Trinh

Conferees:

/R. L. M./

Supervisory Patent Examiner, Art Unit 2873

/W. M. F./

Supervisory Patent Examiner, Art Unit 2814